

# MAPETHERM FLEX RP

Cement-free, fibre-reinforced, lightweight, elastic, skimming paste and base coat resistant to biological agents for internal and external use. Colourable; available in two grades (0.5 mm and 1.5 mm)



UltraLite  
Technology



Fast  
Track  
Ready

## WHERE TO USE

Reinforced skim coats on insulating panels and thermal insulation systems. Renovating damaged/deteriorated insulating systems.

Repairing cracked walls on all types of buildings, including painted walls. Repairing render to even out surface defects. Particularly recommended for protecting critical areas such as wainscots, communal areas in apartment buildings and areas open to the public exposed to impact and stresses.

**Mapetherm Flex RP**, in the 0.5 mm version, is ideal for use on surfaces where a smooth even finish is required, including on insulation systems and may be used to level internal walls that require a smooth, elastic finish.

## TECHNICAL CHARACTERISTICS

**Mapetherm Flex RP** is an organic skimming base coat characterised by high elasticity made from acrylic resins in water dispersion, selected fillers, glass micro-spheres and polypropylene fibres.

It also contains admixtures that make it resistant to biological agents.

Unlike traditional cementitious-based smoothing and levelling compounds **Mapetherm Flex RP** does not need to be fully cured and there is no need to use a primer before applying the final finish, thereby reducing the time to complete work considerably.

**Mapetherm Flex RP** adheres perfectly to all types of insulating panels, skimming mortars, traditional render and old, well-adhered paintwork.

Thanks to its special composition it also provides excellent resistance to impact loads: used in the main **Mapetherm** systems in combination with 1.2 mm thick layers of plaster; it passes 15 Joule impact tests.

**Mapetherm Flex RP** may be tinted using the **ColorMap®** automatic colouring system. When applied in a colour similar to that of the finishing coat, apart from reducing the number of coats required, it hides imperfections in the substrate and helps form an even, uniform finish.

## PREPARATION OF THE PRODUCT

**Mapetherm Flex RP** is supplied ready to use; 1-2% of water may be added if the product is too thick.

## APPLICATION TECHNIQUE

### Mapetherm Flex RP 1.5 mm

Apply the product with a stainless steel trowel making sure the product is applied in an even coat. Then go over the surface with a plastic float to obtain an even finish.

*Skim coats on insulating panels*

Once the adhesive is completely dry, spread an even levelling coat of **Mapetherm Flex RP** on the surface and embed **Mapetherm Net** alkali-resistant glass fibre mesh in the product. Press **Mapetherm Net** down into the product while still wet with a smooth trowel, overlapping the edges of the mesh by 5-10 cm. After 12-24 hours apply a second layer of **Mapetherm Flex RP** skim coating paste to form a compact, even surface suitable for the final coat which must be applied after 24-48 hours, depending on the level of surrounding humidity and temperature, and in all cases only when the previous coat is completely dry. No primer is required.

#### **Reinforced skim coats on façades**

Remove all traces of oil and grease from the surface and any parts which are not well bonded. Areas patched up with repair mortar must be well-cured, perfectly clean and cohesive. The substrate must be dry. Prepare the substrate by applying a coat of **Malech**. Wait 12-24 hours, apply an even layer of **Mapetherm Flex RP** and press **Mapetherm Net** A.R glass fibre mesh into the mortar, overlapping the edges of the mesh. After 12-24 hours apply the second levelling coat. After a further 24-48 hours, depending on the level of surrounding humidity and temperature, and in all cases only when the previous coat is completely dry, plaster the surface or apply two coats of paint. No primer is required.

#### **Repairs to damaged/deteriorated insulating systems**

Make sure the old insulating system is bonded to the substrate. Do not apply **Mapetherm Flex RP** on damp substrates. Remove all traces of oil and grease from the surface and any parts which are not well adhered. Prepare the substrate by applying a coat of **Malech**. Wait 12-24 hours, apply an even layer of **Mapetherm Flex RP** over the old cladding and press **Mapetherm Net** A.R glass fibre mesh into the mortar. Press the **Mapetherm Net** down into the product while still wet with a smooth trowel, overlapping the edges of the mesh by 5-10 cm. After 12-24 hours apply a second levelling coat of **Mapetherm Flex RP** to form a compact, even surface suitable for the final coating product, which must be applied after waiting at least 24-48 hours, depending on the level of surrounding humidity and temperature, and in all cases only when the previous coat is completely dry. No primer is required.

#### **Mapetherm Flex RP 0.5 mm**

Apply the product with a stainless steel trowel making sure the product is applied in an even coat. Then it may be worked with a sponge float while it is drying to create a fine textured rustic effect.

#### **When used to skim thermal insulation system with a natural finish**

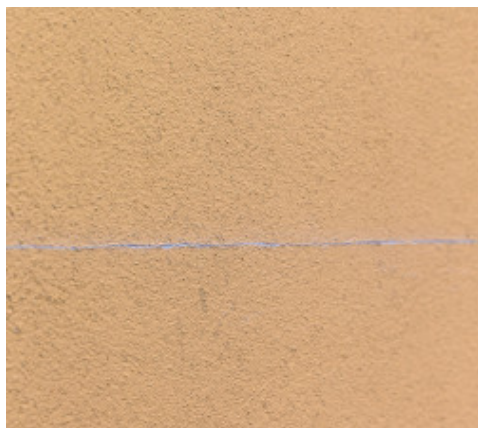
After preparing the substrate as specified with **Mapetherm Flex RP 1.5 mm** reinforced with **Mapetherm Net** mesh, apply one or two layers of **Mapetherm Flex RP 0.5 mm** to obtain a smoother finish than with traditional textured plaster; wait until the first layer is completely dry before applying the second one (12-24 hours).

Use **Mapetherm Flex RP 0.5 mm** in a similar colour to that of the final finish, which may only be applied once **Mapetherm Flex RP 0.5 mm** is completely dry (24-48 hours depending on surrounding temperature and level of humidity).

#### **Skim coats on internal walls**

The substrate must be dry with no traces of dust or dirt. If necessary apply by brush, roller or by spray one coat of suitably diluted **Malech**, according to the substrate absorbency.

Apply two coats of **Mapetherm Flex RP** after at least 12-24 hours and finish off the surface with a sponge float. After a further 24-48 hours, depending on the level of humidity and surrounding temperature, and in all cases only when the previous coat is completely dry, apply two coats of interior paint such as **Dursilite**, **Dursilite Matt** or **Colorite Matt**. If required, the levelling coat may be reinforced with **Elastocolor Net**. No primer is required.



Old cracked cladding



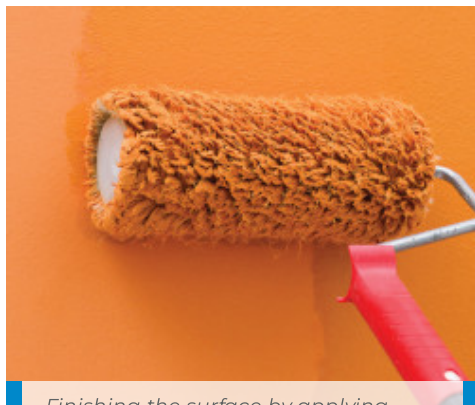
Application of Mapetherm Flex RP



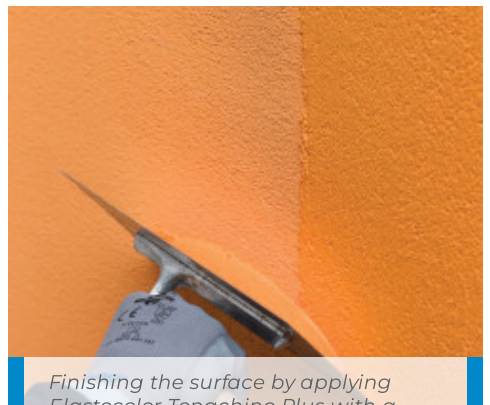
Placing Mapetherm Net in position



Inserting Mapetherm Net into the wet layer of Mapetherm Flex RP



Finishing the surface by applying Silancolor Paint Plus with a roller over Mapetherm Flex RP 0.5 mm



Finishing the surface by applying Elastocolor Tonachino Plus with a trowel over Mapetherm Flex RP 1.5 mm

## PRECAUTIONS TO BE TAKEN DURING PREPARATION AND APPLICATION

Do not use **Mapetherm Flex RP** as a base coat for silicate-based products.

Do not apply **Mapetherm Flex RP** if it is about to rain or in windy weather conditions. After applying the product protect the surface from rain while it is drying for 48/72 hours.

**Mapetherm Flex RP** does not contain solvents, therefore it is not required to take particular precautions when handling the product. If the product is applied in closed areas make sure they are well ventilated.

Do not apply if the temperature is lower than +5°C or higher than +35°C.

Do not apply if the level of humidity is higher than 85%.

Do not apply on damp walls or on walls with rising damp.

## CLEANING

Clean trowels and other tools with water before the **Mapetherm Flex RP** dries.

## CONSUMPTION

**Mapetherm Flex RP 1.5 mm**: 4.0-5.0 kg/m<sup>2</sup> for a 3-4 mm-thick layer.

**Mapetherm Flex RP 0.5 mm**: 1.9-2.1 kg/m<sup>2</sup> per 1 mm of thickness.

Consumption is heavily influenced by the roughness of the substrate.

## PACKAGING

**Mapetherm Flex RP** is supplied in 20 kg plastic drums.

## STORAGE

24 months if stored in a dry place away from sources of heat at a temperature of +5°C to +30°C.

## SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

**Mapetherm Flex RP** is dangerous to aquatic organisms - do not dispose of the product to the environment. We recommend the use of gloves, eyes protection and to take the usual precaution taken when handling chemical products. If the product comes in contact with eyes or skin, wash immediately with plenty of water and seek medical attention. If the product is applied in closed environments, make sure all areas are well ventilated.

For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

|                                                                                      |                                                                                                                               |                                       |                 |        |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------|--------|
| Particle size (mm):                                                                  | 0.5 mm                                                                                                                        | 1.5 mm                                |                 |        |
| Consistency:                                                                         | paste                                                                                                                         |                                       |                 |        |
| Colour:                                                                              | white, from the Mapei colour chart range or in various colours obtained using the <b>ColorMap®</b> automatic colouring system |                                       |                 |        |
| Density (EN ISO 2811-1) (g/cm³):                                                     | 1.45                                                                                                                          | 1.5                                   |                 |        |
| Dry solids content (EN ISO 3251) (%):                                                | 80                                                                                                                            | 80                                    |                 |        |
| APPLICATION DATA (at +23°C and 50% R.H.)                                             |                                                                                                                               |                                       |                 |        |
| Dilution rate:                                                                       | ready to use                                                                                                                  |                                       |                 |        |
| Waiting time between each coat:                                                      | 12-24 hours, depending on surrounding humidity and temperature; the previous coat must always be completely dry               |                                       |                 |        |
| Waiting time before finishing operation:                                             | 24-48 hours, depending on surrounding humidity and temperature; the previous coat must always be completely dry               |                                       |                 |        |
| Application temperature:                                                             | +5°C to +35°C                                                                                                                 |                                       |                 |        |
| Consumption (kg/m²):                                                                 | 1.9-2.1<br>(per 1 mm of thickness)                                                                                            | 4.0-5.0<br>(for a 3-4 mm-thick layer) |                 |        |
| FINAL PERFORMANCE                                                                    |                                                                                                                               |                                       |                 |        |
| VOC content of ready-mixed product (white) (European Directive 2004/42/EC) (g/l):    | ≤ 13                                                                                                                          |                                       |                 |        |
| VOC content of ready-mixed product (coloured) (European Directive 2004/42/EC) (g/l): | ≤ 24                                                                                                                          |                                       |                 |        |
| RESISTANCE TO BIOLOGICAL ATTACK (P.R.A. test report)                                 |                                                                                                                               |                                       |                 |        |
| Applicable standard                                                                  | Test                                                                                                                          | Results                               |                 |        |
| EN 15457                                                                             | Resistance to mould and fungi                                                                                                 | no growth after 28 days               |                 |        |
| EN 15458                                                                             | Resistance to algae                                                                                                           | no growth after 35 days               |                 |        |
| RESISTANCE TO IMPACT (I.T.C. test report for main systems)                           |                                                                                                                               |                                       |                 |        |
| Applicable standard                                                                  | Test                                                                                                                          | Impact                                | Category of use |        |
| UNI EN ISO 7892                                                                      | Mapetherm EPS + Mapetherm Flex RP 1.5 mm + Mapetherm Net + Elastocolor Tonachino Plus 1.2 mm                                  | 15 J                                  | I               |        |
|                                                                                      | Mapetherm EPS + Mapetherm Flex RP 1.5 mm + Mapetherm Net + Quarzolite Tonachino Plus 1.5 mm                                   | 15 J                                  | I               |        |
|                                                                                      | Mapetherm EPS + Mapetherm Flex RP 1.5 mm + Mapetherm Net + Quarzolite HF Plus                                                 | 3 and 10 J                            | I               |        |
| OTHER PERFORMANCE CHARACTERISTICS                                                    |                                                                                                                               |                                       |                 |        |
| Applicable standard                                                                  | Test                                                                                                                          | Results                               | 0.5 mm          | 1.5 mm |

|             |                              |                               |                                                                                                 |                                                                                                 |
|-------------|------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| EN ISO 7783 | Permeability to water vapour | $\mu$                         | 256                                                                                             | 250                                                                                             |
|             |                              | $S_D$ (m)                     | 0.26                                                                                            | 0.38                                                                                            |
|             |                              | $S_D$ dry thickness (m)       | 0.001                                                                                           | 0.0015                                                                                          |
| EN 1542     | Adhesion                     | adhesion (N/mm <sup>2</sup> ) | 2.05                                                                                            | 1.27                                                                                            |
|             |                              | type of failure               | B                                                                                               | B                                                                                               |
| EN 1745     | Thermal conductivity         | result/class                  | 0.54 W/mK (tab value, P = 90%, related to the reference dry density of 1500 kg/m <sup>3</sup> ) | 0.54 W/mK (tab value, P = 90%, related to the reference dry density of 1500 kg/m <sup>3</sup> ) |
| EN 13501-1  | Reaction to fire             | Euroclass                     | A2 - s1,d0                                                                                      |                                                                                                 |

## WARNING

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website [www.mapei.com](http://www.mapei.com)

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